

**BEFORE THE WASHINGTON
UTILITIES & TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,

Complainant,

v.

PUGET SOUND ENERGY, INC.

Respondent.

DOCKETS UE-240004 & UG-240005 (*Consolidated*)

**DAVID J. GARRETT
ON BEHALF OF THE
WASHINGTON STATE OFFICE OF THE ATTORNEY GENERAL
PUBLIC COUNSEL UNIT**

EXHIBIT DJG-7

Account 376.20 – Mains – Plastic

August 6, 2024

Account 376.20 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	Exposures (Dollars)	Observed Life Table (OLT)	PSE R3-45	PC R3-55	PSE SSD	PC SSD
0.0	1,741,550,319	100.00%	100.00%	100.00%	0.0000	0.0000
0.5	1,689,763,027	99.99%	99.98%	99.99%	0.0000	0.0000
1.5	1,624,122,191	99.86%	99.94%	99.95%	0.0000	0.0000
2.5	1,537,725,068	99.77%	99.90%	99.92%	0.0000	0.0000
3.5	1,408,828,014	99.68%	99.84%	99.88%	0.0000	0.0000
4.5	1,302,878,855	99.58%	99.77%	99.83%	0.0000	0.0000
5.5	1,216,285,141	99.50%	99.69%	99.77%	0.0000	0.0000
6.5	1,142,942,737	99.39%	99.60%	99.71%	0.0000	0.0000
7.5	1,072,194,356	99.26%	99.49%	99.64%	0.0000	0.0000
8.5	994,398,595	99.10%	99.37%	99.55%	0.0000	0.0000
9.5	927,846,865	98.91%	99.22%	99.46%	0.0000	0.0000
10.5	871,258,748	98.78%	99.06%	99.36%	0.0000	0.0000
11.5	829,608,796	98.62%	98.87%	99.24%	0.0000	0.0000
12.5	790,400,325	98.44%	98.66%	99.11%	0.0000	0.0000
13.5	737,000,028	98.17%	98.41%	98.96%	0.0000	0.0001
14.5	682,146,773	97.98%	98.14%	98.80%	0.0000	0.0001
15.5	632,289,346	97.83%	97.83%	98.62%	0.0000	0.0001
16.5	594,867,431	97.66%	97.49%	98.41%	0.0000	0.0001
17.5	551,566,818	97.53%	97.10%	98.19%	0.0000	0.0000
18.5	514,689,835	97.38%	96.68%	97.95%	0.0000	0.0000
19.5	479,461,720	97.17%	96.20%	97.68%	0.0001	0.0000
20.5	444,440,081	97.03%	95.68%	97.39%	0.0002	0.0000
21.5	397,920,829	96.92%	95.10%	97.07%	0.0003	0.0000
22.5	364,899,659	96.80%	94.47%	96.72%	0.0005	0.0000
23.5	339,562,242	96.68%	93.77%	96.34%	0.0008	0.0000
24.5	307,687,348	96.58%	93.01%	95.92%	0.0013	0.0000
25.5	278,822,894	96.44%	92.18%	95.47%	0.0018	0.0001
26.5	252,224,962	96.26%	91.28%	94.99%	0.0025	0.0002
27.5	226,681,212	96.16%	90.30%	94.47%	0.0034	0.0003
28.5	194,613,086	96.05%	89.23%	93.90%	0.0046	0.0005
29.5	172,171,591	95.95%	88.08%	93.29%	0.0062	0.0007
30.5	141,155,577	95.82%	86.84%	92.64%	0.0081	0.0010
31.5	108,600,714	95.69%	85.49%	91.94%	0.0104	0.0014
32.5	90,831,056	95.45%	84.04%	91.19%	0.0130	0.0018
33.5	76,701,606	95.22%	82.47%	90.39%	0.0162	0.0023
34.5	62,578,673	94.73%	80.79%	89.53%	0.0194	0.0027
35.5	49,608,925	94.06%	78.98%	88.62%	0.0227	0.0030
36.5	41,180,852	92.65%	77.04%	87.64%	0.0244	0.0025
37.5	33,319,578	90.86%	74.96%	86.60%	0.0253	0.0018
38.5	27,260,512	88.71%	72.73%	85.49%	0.0255	0.0010
39.5	23,561,732	86.23%	70.36%	84.31%	0.0252	0.0004
40.5	18,470,778	83.78%	67.84%	83.06%	0.0254	0.0001
41.5	14,618,559	81.63%	65.17%	81.72%	0.0271	0.0000
42.5	9,011,386	79.81%	62.36%	80.31%	0.0305	0.0000
43.5	6,880,314	78.52%	59.41%	78.81%	0.0365	0.0000
44.5	5,526,382	78.30%	56.33%	77.22%	0.0483	0.0001
45.5	4,302,555	78.16%	53.13%	75.54%	0.0627	0.0007
46.5	2,056,329	78.06%	49.84%	73.76%	0.0797	0.0018

Account 376.20 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	Exposures (Dollars)	Observed Life Table (OLT)	PSE R3-45	PC R3-55	PSE SSD	PC SSD
47.5	249,974	77.95%	46.47%	71.89%	0.0991	0.0037
48.5	3	77.59%	43.05%	69.91%	0.1193	0.0059
49.5			39.62%	67.84%		
Sum of Squared Differences				[8]	0.7407	0.0326
SSD for Truncated OLT Curve (Up to 1% of Beginning Exposures)				[9]	0.2377	0.0203

[1] Age in years using half-year convention

[2] Dollars exposed to retirement at the beginning of each age interval

[3] Observed life table based on the Company's property records. These numbers form the original survivor curve.

[4] The Company's selected Iowa curve to be fitted to the OLT.

[5] My selected Iowa curve to be fitted to the OLT.

[6] = ([4] - [3])². This is the squared difference between each point on the Company's curve and the observed survivor curve.

[7] = ([5] - [3])². This is the squared difference between each point on my curve and the observed survivor curve.

[8] = Sum of squared differences. The smallest SSD represents the best mathematical fit.